Cal-OSHA rule

- Threshold Limit Value
  - 25 ppm TLV
    instead of Fed. OSHA
    100 ppm TLV

Form Approved
Budget Bureau No. 44-R1387
Approval Expires April 30, 1971

Form No. LSB-OOS-4
May 1969

U.S. DEPARTMENT OF LABOR

WORKPLACE STANDARDS ADMINISTRATION

Bureau of Labor Standards

MATERIAL SAFETY DATA SHEET

JUN 14 1982

DPM 541

SECTION I

MANUFACTURER'S NAME: Source of Data: DETREX CHEMICAL IND., INC.	EMERGENCY TELEPHONE NO.: (313) 358-5800
ADDRESS (Number, Street, City, State, and ZIP Code): Box 501 Detroit, Michigan 48232	
CHEMICAL NAME AND SYNONYMS: Trichloroethylene	TRADE NAME AND SYNONYMS: PERM A CLOR NA
CHEMICAL FAMILY: Chlorinated Hydrocarbon	FORMULA: $CCl_2 = CHCl$

SECTION II HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS	100	100	FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	188	SPECIFIC GRAVITY ($H_2O=1$)	1.46
VAPOR PRESSURE (mm Hg.)	58	PERCENT VOLATILE BY VOLUME (%)	100
VAPOR DENSITY (AIR=1)	4.54	EVAPORATION RATE (ether =1)	0.28
SOLUBILITY IN WATER (less than 0.1%)	Negligible		
APPEARANCE AND ODOR	Clear, colorless liquid with characteristic mild ethereal odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used): None (Closed Cup Method)	FLAMMABLE LIMITS: n.a.	Lel	Uel
EXTINGUISHING MEDIA			
SPECIAL FIRE FIGHTING PROCEDURES: (Note: In chlorinated solvent degreasers that clean aluminum production, use only water to reduce the aluminum reaction, if and when that occurs.)			
UNUSUAL FIRE AND EXPLOSION HAZARDS: Vapors can be decomposed by intense heat or open flames releasing HCl			

IS 7202.3 (1/2)

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: 100 ppm (520 mg/M^3)

EFFECTS OF OVEREXPOSURE: Overexposure may lead to slight anesthetic feeling, possible irritation to eyes, nose and throat. Continued exposure can result in headaches, fatigue, dizziness, nausea and gradual suppression of consciousness.

EMERGENCY AND FIRST AID PROCEDURES: Move patient to fresh air and if unconscious give artificial respiration or oxygen. Any clothing that has been wet with the solvent liquid should be removed, the skin allowed to air dry completely and then treated with a lanolin cream. If liquid has entered the eyes it should be immediately flushed with lukewarm water for at least 15 minutes.

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID: Welding, open flames and infra red heaters.
	STABLE	X	

INCOMPATABILITY *(Materials to avoid)*: Sodium and Potassium hydroxides and cyanides

HAZARDOUS DECOMPOSITION PRODUCTS: HCl during thermal decomposition

HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Avoid breathing high concentrations of the vapors and avoid contact of the liquid with the skin and clothing. Flush spilled areas with water. Be sure sufficient fresh air enters the area or it should be vacated.

WASTE DISPOSAL METHOD: Used solvent should be recovered by distillation. The residue from distillation may be incinerated, dry welled etc. Check local requirements.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION *(Specify type)*: None necessary when the trichloroethylene is used in a properly designed and operated degreaser or machine.

VENTILATION	LOCAL EXHAUST: Sufficient to maintain TLV	SPECIAL: During Clean-outs: Tanks are to be completely emptied and aired or flushed with water.
	MECHANICAL *(General)*: Avoid drafts over or at degreasers	

PROTECTIVE GLOVES: Normally not necessary (Neoprene)

EYE PROTECTION: Normally not necessary (glasses/goggles)

OTHER PROTECTIVE EQUIPMENT: When cleaning tanks never enter until safe or use air respirator. Use buddy system

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Avoid spillage and leak causing accidents.

OTHER PRECAUTIONS: Avoid spillage, repeated contact with the skin and prolonged breathing of the vapors.